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TI Manufacture of water-soluble flavonol glycosides with galactosidase and glucanotransferase

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SO Jpn. Kokai Tokkyo Koho, 7 pp.

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AB The title glycosides I (R1 = glucose or arabinose residue; R2 = rhamnose residue, H; R3, R5 = galactose residue, H; when R2 = H, then R3 = none; R4 = glucose residue, H; in which glucose and rhamnose residues are bonded by 6,1-bond and 2 glucose residues by .alpha.-1,4-bond; m = 1-3; n = 1-7) are manufd. from quercetin glycosides by enzymic galactosylation and glucosylation. I are useful as stable antioxidants and UV absorbers for foods, cosmetics, and pharmaceuticals (no data). DMSO soln. of rutin was treated with .beta.-galactosidase and phosphate buffer contg. lactose at 60.degree. for 4 h to produce 60% galactose-modified rutins, which (20 g) were treated with cyclodextrin glucanotransferase and 100 g sol. dextrin at 50.degree. for 16 h in phosphate buffer to manuf. 32 g rutin glycosides (rhamnose:glucose:galactose = 1.3:5:1.2). The products had gtoreq. 10 wt.% soly. in H2O, vs. 0.001 wt.%, for rutin.

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